Name of Solution:

Sameeksha: Automate PowerCenter Code Review

Business Requirement:

Automates the process of code review and generates a report in a few seconds with a detailed list of defects present in the PowerCenter mapping.

Solution URL:

https://community.informatica.com/solutions/1773

Supported Versions:

PowerCenter 9.1 and 9.5

Description:

Time and again, PowerCenter users have to review their mappings for various reasons. The activity of reviewing PowerCenter code can consume a lot of time. Especially when a developer wants to verify each port in the mapping for the following:

- Data types Mismatch.
- Length mismatch to avoid data truncation.
- Naming standards.
- To ensure that all target ports are logically connected to correct sources.

"Sameeksha", the code review tool automates the process of review and generates a report in a fraction of a second with a detailed list of defects present in the mapping.

"Sameeksha" reduces the review effort of the developer (Unit Testing) and code reviewer (Peer Review) by 90% to 100% accuracy.

This tool can do the following things:

- Automation of code review process.
- Removal of manual intervention in the code review process susceptible to human errors.
- Improvement and maintenance quality of the deliverables.
- Saving of lot of time and increase in productivity.

You can download this block as part of the Debugging Tools bundle and the Informatica Tools bundle.

Pre-Requisites / System Requirement:

This tool required JDK 6.0 pre-installed on the machine. Download JDK 6.0 from ORACLE website.

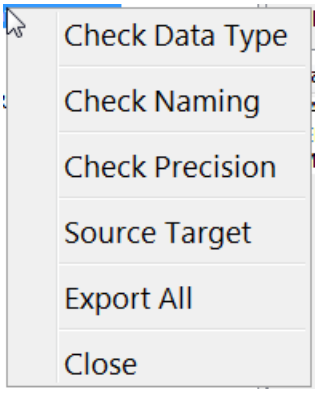
Download file contents:

1. Application
2. Config File
3. Samples

Steps to implement the solution:

Installation:

1. Install JDK 6.0 from the internet.
2. Install "Sameeksha" application using "sameeksha-windows.exe".
3. After installing Sameeksha, make the following changes to keep your copy of Sameeksha up-to date. Go to: *Tools->Plugins->Setting->Add*
   Set name to Sameeksha and URL to *http://dl.dropbox.com/u/65333650/catalog.xml*
4. Go to the updates tab now, if you see new update then click update if not then click reload catalog, make sure you are connected to the internet. Ignore the validation warning and continue. This will help you update Sameeksha to the current version.
5. Copy and overwrite the "ConfigFile" to "C:\Program Files\sameeksha\config" folder.
6. Open any XML file from the "SampleFile" folder and Observe the right click menu as shown below.



Config File:

7. Importance of configuration files is given as below.

   names.config

   This config file useful for "Check Naming" option. User can modify the file as per the organization's strategy of naming conventions. Name of transformation should start with prefixed characters as per type of transformation. The user can apply multiple naming convention strategy for one transformation separated by space. Observe the image shown below. "Source definition" should start with "src_" although "Expression" transformation can be started with "exp_","Exp_", "EXP_".

names.config

```
Sourcedefinition=src_
Targetdefinition=tgt_
Expression=exp_ Exp_ EXP_
Filter=fil_ flt_ FLT_
Aggregator=agg_ AGG_
Rank=rnk_
Normalizer=norm_ nrm_ NRM_
Router=rtr_ Rtr_ RTR_
Sequence=seq_ Seq_ SEQ_
Sorter=srt_ SRT_
updatestrategy=upd_ UPD_
CustomTransformation=uni_ cus_ http_ sql_ xmlgen_ xmlparse_ udt_
LookupProcedure=lkp_ Lkp_ LKP_
Transactioncontrol=tc_
StoredProcedure=sp_ sct_PKG_
ExternalProcedure=ep_
Joiner=jnr_ JNR_
WORKFLOW=wf_ wkf_ WKF_
WORKLET=wlt_
SESSION=s_m_
MAPPING=m_
MAPPLET=mpl_
```

datatype.config

This config file useful for "Check Datatype" option. All data types supported by source qualifier are grouped into three categories. During the whole mapping if any of the data type converted into a different category then "Sameeksha"indicate it as a mismatch.

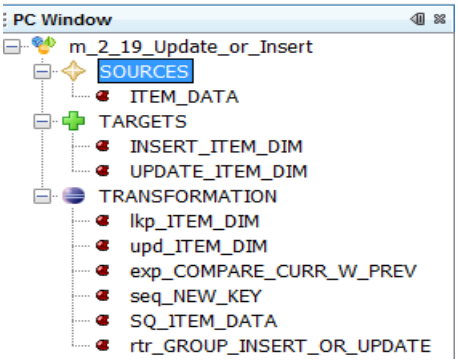
datatype.config

```
NUMERIC=bigint~decimal~double~float~int~integer~long~number~number(p,s)~numeric~smallint~tinyint~real~small integer
STRING=char~varchar~nchar~ntext~nvarchar2~string~text~varchar2
DATE=date~datetime~smalldatetime~time~timestamp~date/time

#Chose from below line to add more
#bigint binary bit blob char char for bit data clob date datetime dbclob decimal double float graphic image int integer
```

Usage:

8. Import the sample file using File -> Import. This will list source, target and transformation used in mapping as shown below.

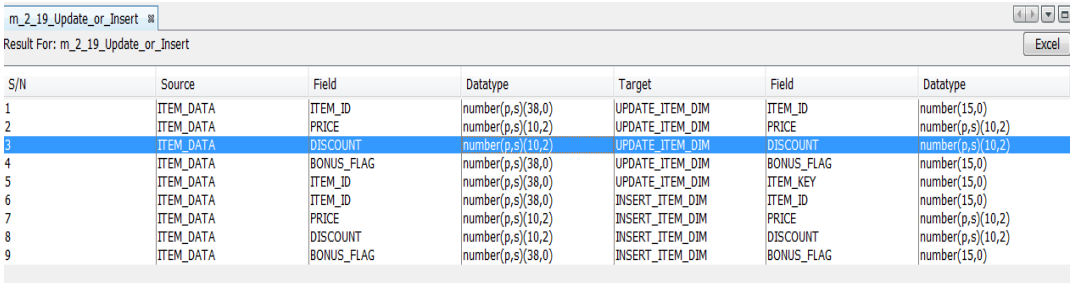


9. The right click menu will provide options for imported files. The options are as below:
    a. Check data type: This option checks data type of the ports converted into valid data types. This option uses the "datatype.config" file.

b. Check Naming: This option checks the naming convention as per options available in "names.config".

c. Check Precision: This option checks the precision mismatch.

d. Source Target: This option displays source and target details as below. If the two/more source port provides value to target port (e.g. Concatenation) then two source ports will be shown against one target port.


m_2_19_Update_or_Insert

Result For: m_2_19_Update_or_Insert

Excel

S/N	Source	Field	Datatype	Target	Field	Datatype
1	ITEM_DATA	ITEM_ID	number(p,s)(38,0)	UPDATE_ITEM_DIM	ITEM_ID	number(15,0)
2	ITEM_DATA	PRICE	number(p,s)(10,2)	UPDATE_ITEM_DIM	PRICE	number(p,s)(10,2)
3	ITEM_DATA	DISCOUNT	number(p,s)(10,2)	UPDATE_ITEM_DIM	DISCOUNT	number(p,s)(10,2)
4	ITEM_DATA	BONUS_FLAG	number(p,s)(38,0)	UPDATE_ITEM_DIM	BONUS_FLAG	number(15,0)
5	ITEM_DATA	ITEM_ID	number(p,s)(38,0)	UPDATE_ITEM_DIM	ITEM_KEY	number(15,0)
6	ITEM_DATA	ITEM_ID	number(p,s)(38,0)	INSERT_ITEM_DIM	ITEM_ID	number(15,0)
7	ITEM_DATA	PRICE	number(p,s)(10,2)	INSERT_ITEM_DIM	PRICE	number(p,s)(10,2)
8	ITEM_DATA	DISCOUNT	number(p,s)(10,2)	INSERT_ITEM_DIM	DISCOUNT	number(p,s)(10,2)
9	ITEM_DATA	BONUS_FLAG	number(p,s)(38,0)	INSERT_ITEM_DIM	BONUS_FLAG	number(15,0)

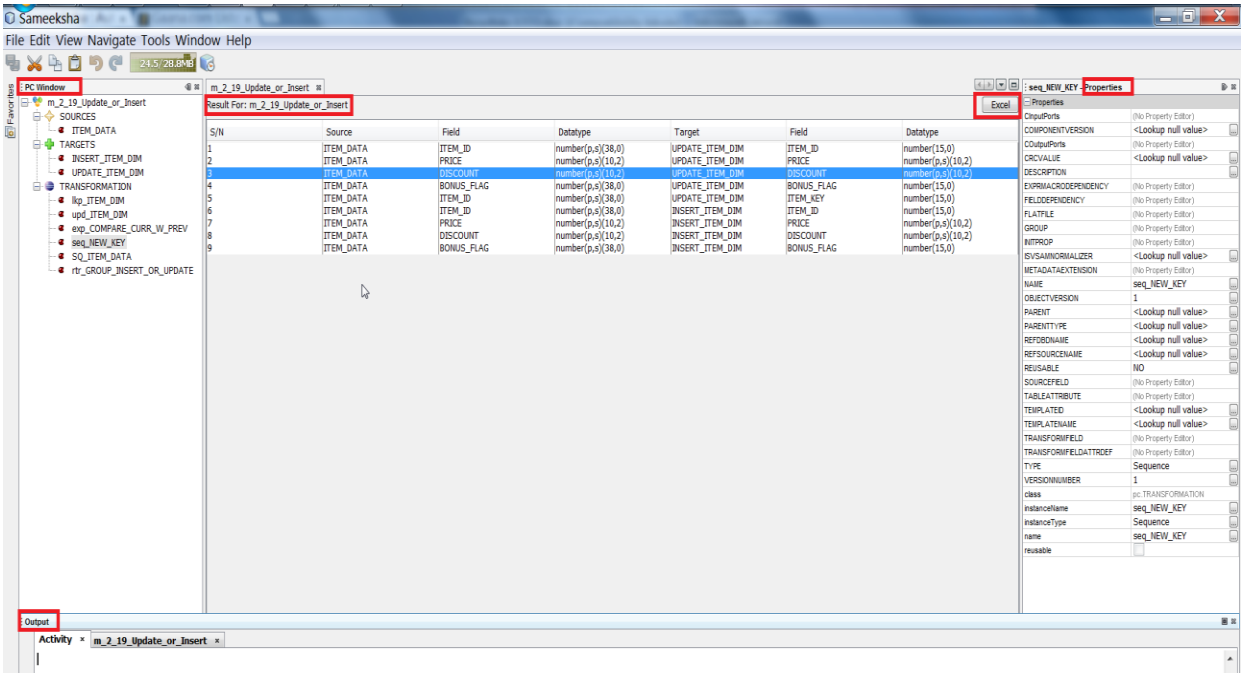
This feature has limitations as below.

- Source port splits into multiple target ports won't be covered.
- Source port pass through complex transformations and mapplets are not shown.

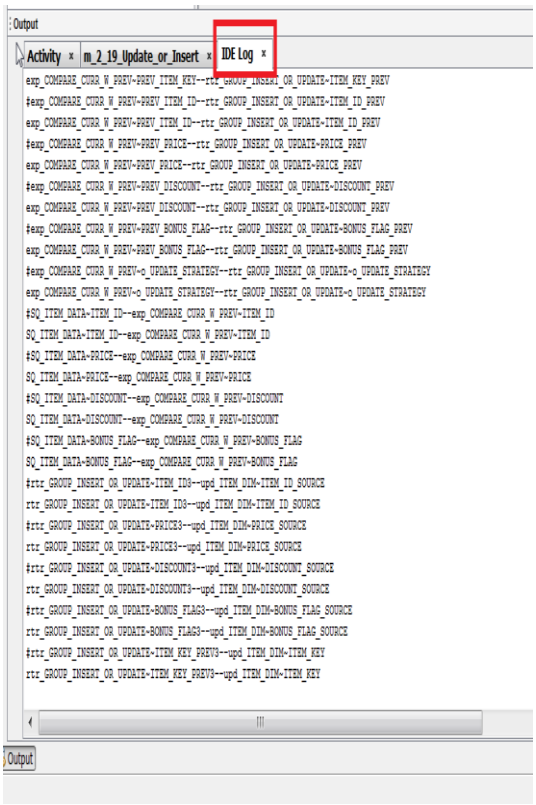
e. Export All: This option export result of all above features except source-target option into excel file. Application need to be run as administrator otherwise rights restriction won't allow excel file to be generated.

f. Close: This will remove the XML file from an application.

Appearance:



10. The appearance of the application looks like as shown in the above image. The **PC window** shows the imported mapping file. User can open multiple mapping files for processing. The **result pane** displays the result of right click menu features. **Excel button** exports the result pane into excel file. By default exporting location is installation directory e.g. "C:\Program Files\sameeksha". **Properties pane** shows the properties of child node of PC window. As seen in the image, all child nodes are either transformations or data definitions.



IDE Log:

IDE log is detailed information for activities happens at the background. It will show options execution as well as an error occurred.

If application encounter with any error user can view it by clicking on the right corner icon.

YouTube Video on Importing and Configuring Workflows:

http://www.youtube.com/playlist?list=PLLRreK2jjjgWBQ4NPfp0QWTxYDvlnEqSJ

Other Useful links:

Mapping Bundles
Workflow Bundles
Informatica Tools Bundles
Informatica for Social Media Bundles
Debugging Tools Bundles
Visio Templates Bundles
B2B Templates and Projects Bundles
Data Quality Packs and Plans Bundles
Script Bundles